

Making the Connection:

Linking Policies to Improve Public Safety with Preventing Childhood Obesity

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Policymakers express perennial concern about preserving and protecting public safety. Although crime has declined since the early 1990s and is currently at a significantly lower level than it has been in decades, the U.S. crime rate continues to rank among the highest in the industrialized world.^{1,2} Large urban areas in the United States remain flashpoints for violence and property crime, which attract national attention and cause many to question the safety of their own communities. Moreover, residents who live in communities plagued with dilapidated buildings, unkempt lots, crumbling or nonexistent sidewalks, crosswalks and bike lanes, may not feel as safe as residents who live in well-maintained communities.³ Research shows that people's perceptions about crime and public safety impact their daily decisions, such as whether they feel comfortable using parks, walking in their neighborhoods or taking public transportation.^{4,5}



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Traffic calming involves changing street alignment and adding barriers to reduce traffic speeds in order to improve street safety and functionality for pedestrians. This can include designing narrower streets, sidewalk bulb-outs, raised crosswalks, raised medians, wide sidewalks and streetscaping such as trees, hedges and planter strips

Safe Routes to School (SRTS) is a federal grant program designed to make it easier for children to walk and bike to school and to make it safe and more convenient to do so. Locally implemented programs combine the five Es of STRS—evaluation, engineering, education, encouragement and enforcement. STRS programs are typically led by parents, teachers, students, elected officials, government agencies and community members.

At the same time that policymakers are struggling with the issue of public safety, obesity rates across the nation remain high. While seemingly unrelated, these issues share common solutions, including designing communities that allow residents to walk, bike and play safely and addressing residents' concerns about crime. **By implementing “win-win” policies that reduce crime and improve the built environment, policymakers can improve the safety of communities in ways that also could help reduce the high rates of obesity across the nation.**

Making the Connection

Today, nearly one-third of children and adolescents in the United States are overweight or obese.⁶ Numerous studies have shown that daily exercise improves children's health and helps prevent obesity.⁷ Many policymakers are addressing this challenge by implementing policies that increase green space and facilitate active transportation. Yet, public safety remains a significant barrier for physical activity for many children. A growing body of research demonstrates that when families feel safe in their communities, they are more likely to engage in physical activity that improves their overall health.⁸ By implementing policies that tackle both the adequacy of a neighborhood's built environment and implications and perceptions of neighborhood crime, policymakers can address significant safety concerns, promote active, livable communities and reduce childhood obesity rates.

Ensuring safe conditions for walking, cycling and play can help encourage active lifestyles.⁹

Poor community design and deteriorating infrastructure can create significant safety risks for a community's residents. Data strongly suggest that the risk of pedestrian injuries increases in areas with wide roads, high traffic density, limited crosswalks and few sidewalks.¹⁰ Children and residents from lower-income and racial and ethnic minority neighborhoods are at an even higher risk for traffic-related pedestrian injury or mortality.^{11,12,13,14,15} Yet, this hazard is not restricted to urban settings. Traffic related injuries and fatalities occur disproportionately in Alaska Native and American Indian communities, many of them rural, where children have pedestrian traffic death rates four times the national average.¹⁶ Policymakers can help prevent these injuries and deaths by implementing **traffic calming** approaches that allow for safe walking and biking. **For example, the installation of 1,600 speed humps in Oakland, Calif., substantially decreased the likelihood of traffic-related pedestrian injuries and fatalities—children living within one block of the humps were 53 to 60 percent less likely to be injured or killed by a car in their neighborhood.¹⁷**

Improving pedestrian walkways and sidewalks also can increase opportunities for residents to lead active lifestyles. Due in large part to parents' concerns about safety, only 15 percent of children nationwide now walk to school—an activity that could add an average of 24 minutes of exercise each day.^{18,19,20,21} There are policy options that can address safety concerns, including **Safe Routes to School** (SRTS) programs that can support building sidewalks, bike paths and traffic crossings. An analysis of 33 studies demonstrated that children in neighborhoods with sidewalks and controlled intersections were more physically active than children in neighborhoods with road hazards and unsafe intersections.²² Another study found the number of children walking or biking to school tripled when communities added bike lanes, and improved sidewalks and crosswalks.²³ **An SRTS program in Marin County, Calif., generated a 64 percent increase in walking trips and a 114 percent increase in biking trips to school.²⁴ By the third year of the program, participation had increased from 3,500 students in nine schools to 7,609 students in 21 schools.²⁵**

Complete streets policies also can be used to facilitate safe opportunities for physical activity. **In Boulder, Colo., the city's transportation master plan seeks to decrease congestion, and encourage safe active transport and use of the transit system. A 2010 transportation assessment found that the city's implementation of a complete streets investment plan encouraged residents to walk three times as often and cycle twenty times more than the national average.**²⁶

Research also reveals that children are more physically active if they live near recreational facilities, such as parks and playgrounds.²⁷ However, many studies show that lower-income groups and racial and ethnic minorities have limited access to well-maintained or safe parks and recreational facilities.^{28,29} For example, a study found that playgrounds in underserved areas of Boston with a greater proportion of Blacks and youths living in poverty tended to be less safe than those in other neighborhoods.³⁰ Improving safe access to recreation areas can increase the likelihood that children will be physically active, while also improving the quality of life and sense of community for residents.^{31,32} **Researchers in New Orleans examined the effects of offering supervised schoolyards as areas for unstructured play during out-of-school time.³³ The study found the number of children who were outdoors and physically active was 84 percent higher in the neighborhood where access to the supervised schoolyard was available.³⁴**

Addressing concerns about crime through community planning and engagement can improve safety and increase opportunities for physical activity. Some communities have experienced a decrease in crime rates by using the **Crime Prevention Through Environmental Design** (CPTED) approach.^{35,36} Using this collaborative approach, the police department, community organizations and private business leaders in Cincinnati, Ohio, worked together to revitalize the Over-the-Rhine neighborhood.³⁷ Incorporating art and green spaces into the community design, they transformed a crime-ridden abandoned lot into a landscaped butterfly garden and increased policing in high-crime areas. To encourage social interaction and discourage littering, loitering and drug crimes in a community park, the city added planters, benches, lighting and trashcans. **As a result of their efforts, Cincinnati experienced a 22 percent reduction in violent crimes and a 15 percent reduction in crimes for non-aggravated assault. Additionally, community involvement with the police department has almost doubled.**³⁸

People also are more likely to be physically active if they perceive their environment is safe.^{39,40,41,42,43,44} A study in Chicago demonstrated that youths living in safer neighborhoods engaged in physical activity for an additional 49 minutes per week compared with youths living in unsafe neighborhoods.⁴⁵ The 2003 California Health Interview Survey found that, regardless of teens' access to parks, 10 percent fewer teens living in neighborhoods perceived to be unsafe engaged in physical activity than their peers in neighborhoods that were perceived to be safer.⁴⁶ In addition, 11.4 percent of teens reported engaging in no physical activity in neighborhoods perceived as unsafe, compared with only 6.4 percent in neighborhoods perceived as safe.⁴⁷ Policymakers can increase perceptions about safety, and thus the level of physical activity in a neighborhood through community safety assessments, renovations and physical improvements.^{48,49,50} **In Madera, Calif., the Madera in Motion Obesity Council addressed environmental barriers and safety challenges, which included gang activity, drug dealing and violence, in order to help encourage physical activity.⁵¹ Engaging youths, parents, local schools and businesses, the council conducted walkability assessments, identified safety "hot spots" and developed a Park Watch program to allow to coordinate citizen park patrols. As a result, parents have reported a difference in park activities and that they are more comfortable letting their children play outdoors.⁵²**

Complete streets are roadways designed to function in ways that enable safe access for all users. Pedestrians, bicyclists, wheelchair users, motorists and bus riders of all ages and abilities are able to safely move along and across a complete street.

The Crime Prevention Through Environmental Design (CPTED) method incorporates design principles in community planning order to deter crime, reduce fear and improve the quality of life. Recommendations include promoting the visibility of people ("eyes on the streets"), good lighting and neighborhood beautification, and revamping empty lots into functional community spaces such as gardens or parks.

Additionally, recreation programs can be used to engage youths in physical activity while reducing juvenile delinquency.⁵³ A 2007 study of the LA's BEST program, which offers a range of after-school enrichment programs including homework support, recreation activities and health programs to at-risk elementary school-aged children, found that participating children had significantly lower incidences of juvenile crime.⁵⁴ In particular, midnight basketball leagues for at-risk youths help reduce crime rates. **For example, a 2006 study showed that from 1985 to 2000, cities with midnight basketball leagues experienced greater declines in crime rates than those without leagues.**⁵⁵

Policy Recommendations

By working with community organizations, schools and private sector partners to address safety-related interventions, state and local officials can ensure children have opportunities for safe physical activity. Some approaches to consider include:

Improving conditions that allow for safe active transport.

Policymakers can enhance infrastructure to allow for safe walking and biking by supporting measures that:

- Implement complete streets strategies in neighborhoods so pedestrians, cyclists, motorists, people with disabilities and children can safely and conveniently use streets;
- Promote traffic calming by designing narrower streets, sidewalk curb extensions, raised crosswalks, raised medians, wide sidewalks and streetscaping such as trees, hedges and planter strips;
- Employ measures such as appropriately timed traffic lights, pedestrian signals, clearly painted intersection crosswalks, crossing guards near schools and sufficient street lighting at night; and
- Establish separate traffic lanes for cyclists and motorcyclists, and sidewalks for pedestrians.

Increasing opportunities for children to walk or bike to school safely.

Policymakers can increase safety mechanisms that allow children to engage in physical activity on their way to and from school by supporting measures that:

- Develop and coordinate walk-to-school routes, formally adopt Safe Routes to School (SRTS) programs and/or apply for SRTS grant funding from local, state, federal or private sources;
- Support walking school bus programs, in which an organized group of children walk together with supervision from adults;
- Develop bicyclist safety awareness campaigns that encourage and subsidize the purchase of bike helmets; and
- Implement and enforce reduced speed limits for vehicles around schools, residential and play areas.

Maintaining and providing safe access to parks.

Policymakers can encourage the use of existing parks and green space by taking actions that will increase their use and ensure these areas are safe by supporting measures that:

- Conduct community and park safety assessments to increase real and perceived safety of open and green spaces;
- Renovate and improve park and open space aesthetics and safety measures, including lighting and patrols; and
- Increase organized and supervised activities in parks to promote their use, especially among youths.

Designing communities to discourage crime and encourage physical activity.

Policymakers can decrease crime while also encouraging physical activity by supporting measures that:

- Promote collaborative design among city and county officials, police departments, local businesses, residents and community leaders;
- Adopt community design strategies that deter crime, such as building attractive walking environments with sufficient lighting;
- Design buildings that promote “eyes on the street” and maximize the visibility of people, such as active storefronts with windows overlooking sidewalks and front porches; and
- Redevelop blighted areas, such as vacant lots, by converting them into community gardens, parks and other green spaces.

Implementing approaches to engage the community and address perceptions about crime.

Policymakers can address perceptions about crime that discourage physical activity by supporting measures that:

- Use community assessments to receive input on danger zones and areas where crime prevention efforts should be focused;
- Work with community residents to employ additional policing strategies, such as neighborhood watch groups; and
- Increase policing in high-crime areas, pedestrian walkways and parks.

Endnotes

- ¹ Rand M and Truman J, *Criminal Victimization, 2009*. Washington: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, October 2010.
- ² Van Kesteren JN, Mayhew P and Nieuwebeerta P. *Criminal Victimization in Seventeen Industrialised Countries: Key-findings from the 2000 International Crime Victims Survey*. The Hague, Netherlands: Ministry of Justice, WODC, 2000.
- ³ *Why Place and Race Matters*. Oakland: PolicyLink, April 2011.
- ⁴ Federal Bureau of Investigation. "Crime in the United States, 2009." Washington, DC: Uniform Crime Reports, U.S. Department of Justice, 2010.
- ⁵ Babey SH et al. *Access to Safe Parks Helps Increase Physical Activity Among Teenagers*. Los Angeles: UCLA Center for Health Policy Research, December 2005, www.healthpolicy.ucla.edu/pubs/files/TeenActivity_PB_120605.pdf (accessed August 2011).
- ⁶ Ogden CL, Carroll MD, Curtin LR, et al. "Prevalence of Overweight and Obesity in the United States, 1999-2004." *Journal of the American Medical Association*, 295: 1549-55, 2006.
- ⁷ Warburton D and Nicol C, et al. "Health Benefits of Physical Activity: the evidence." *Canadian Medical Association Journal*, 174(6): 801-809, 2006.
- ⁸ Centers for Disease Control and Prevention. "Morbidity and Mortality Weekly Report: Neighborhood safety and the prevalence of physical inactivity in selected states, 1996." *Journal of the American Medical Association*, 281:1373, 1999.
- ⁹ Sallis J and Kerr J. "Physical Activity and the Built Environment." *Presidential Council on Physical Fitness and Sports Research Digest*, 7(4), December 2006.
- ¹⁰ Ernst M. *Mean Streets: How Far Have We Come? Pedestrian Safety, 1994 – 2003*. Washington: Surface Transportation Policy Project, November 2004.
- ¹¹ Johnson E, Geyer JA, Rai N, et al. "Low Income Childhood Pedestrian Injury: Understanding the Disparate Risk." *UC Berkeley Traffic Safety Center Online Newsletter*, 2004.
- ¹² Laflamme L and Diderichsen F. "Social Differences in traffic injury risks in childhood and youth—a literature review and a research agenda." *Injury Prevention*, 6: 293–278, 2000.
- ¹³ "Missing Links, Useful Statistics about Minorities' Exposure to Traffic Risks Are Hard to Come By." *UC Berkeley Traffic Safety Center Online Newsletter*, 2003, www.tsc.berkeley.edu/newsletter/Fall03/missinglinks.html (accessed August 2011).
- ¹⁴ Le M and Runder J. *1995-2004 CARTS Pedestrian/Bicyclist Crash Analysis*. Washington: Transportation Research Board, National Academies of Science, 2006.
- ¹⁵ Ernst M.
- ¹⁶ *Report to the Nation: Trends in Unintentional Childhood Injury Mortality, 1987 – 2000*. Washington: National SAFE KIDS Campaign, May 2003.
- ¹⁷ Ibid.
- ¹⁸ *Travel and Environmental Implications of School Siting*. Washington: U.S. Environmental Protection Agency, 2003.
- ¹⁹ Sirad JR, Riner WF, McIver KL et al. "Physical Activity and Active Commuting to Elementary School." *Medicine and Science in Sports and Exercise*, 37(12): 2062-2069, 2005.
- ²⁰ "Barriers to Children Walking to or from School - United States, 2004." *Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report*, 54(38): 949-952, 2005.
- ²¹ *Does the Built Environment Influence Physical Activity? Examining Evidence (Special Report 282)*. Washington: Transportation Research Board/Institute of Medicine, Committee on Physical Activity, Health, Transportation and Land Use, 2005.
- ²² Greves HM, Lozano P, Liu L, Busby K, et al. "Immigrant families' perceptions on walking to school and school breakfast: a focus group study." *The International Journal of Behavioral Nutrition and Physical Activity*, 4(64), 2007.
- ²³ "Walking and Biking to School. Making it Safe. Traffic Safety Center Evaluation Delivered to the State Legislature." *UC Berkeley Traffic Safety Center Online Newsletter*, 2003, www.tsc.berkeley.edu/newsletter/winter2006-07/safetoschool.html (accessed August 2011).
- ²⁴ Ibid.
- ²⁵ Staunton CE, Hubsmith D and Kallins W. "Promoting Safe Walking and Biking to School: The Marin County Success Story." *American Journal of Public Health*, 93(9): 1431-1434, 2003.
- ²⁶ *Transportation to Sustain a Community, A Report on Progress*. Boulder: City of Boulder, Transportation Division, 2010, www.boulder.colorado.gov/files/Transportation/Transportation/trans_report_on_progress_2009_decrease.pdf (accessed September 2011).
- ²⁷ Greves HM, Lozano P et al. "Immigrant families' perceptions on walking to school and school breakfast: a focus group study." *The International Journal of Behavioral Nutrition and Physical Activity*, 4(64), 2007.
- ²⁸ Gordon-Larsen P, Nelson MC et al. "Inequality in the Built environment Underlies Key Health Disparities in Physical Activity and Obesity." *Pediatrics*, 117(2): 417–424, 2006.
- ²⁹ Moore LV, Diez Roux AV et al. "Availability of recreational resources in Minority and Low Socioeconomic Status Areas." *American Journal of Preventive Medicine*, 34(1): 16–22, 2008.
- ³⁰ Cradock AL, Kawachi I et al. "Playground Safety and Access in Boston Neighborhoods." *American Journal of Preventive Medicine*, 28(4): 357-363, 2005.
- ³¹ Choy LB, McGurk MD et al. "Increasing Access to Places for Physical Activity through a Joint Use Agreement: A Case Study in Urban Honolulu." *Preventing Chronic Disease Public Health Research, Practice, and Policy*, 5(3), July 2008.

- 32 Sherer, Paul M. *The Benefits of Parks: Why American Needs More City Parks and Open Space*. San Francisco: The Trust for Public Land, 2006, <http://sfnpc.org/files/WhyAmerica%20Needs%20More%20City%20Parks%20and%20Open%20Space-%20TPL.pdf> (accessed September 2011).
- 33 Farley TA, Meriwether RA et al. "Safe Play Spaces to Promote Physical Activity in Inner-City Children: Results from a Pilot Study of an Environmental Intervention." *American Journal of Public Health*, 97(9): 1625-1631, 2007.
- 34 Ibid.
- 35 Anderson K. *MetLife Foundation Community-Police Partnership Award Winner: Druid Hills Revitalization Project—Charlotte, North Carolina*. MetLife Foundation, 2007, www.lisc.org/files/6960_file_metlife2007_druidhills.pdf (accessed August 2011).
- 36 Plaster CS, Carter SL and Dannenberg AL. "Zoning Out Crime and Improving Community Health in Sarasota, Florida: Crime Prevention through Environmental Design." *American Journal of Public Health*, 93(9): 1442-1445, 2003.
- 37 Anderson K. *MetLife Foundation Community-Police Partnership Award Winner: Revitalizing Over-the-Rhine—Cincinnati, Ohio*. MetLife Foundation, 2007, www.lisc.org/content/publications/detail/6963 (accessed August 2011).
- 38 Ibid.
- 39 Centers for Disease Control and Prevention. "Morbidity and Mortality Weekly Report: Neighborhood safety and the prevalence of physical inactivity in selected states, 1996." *Journal of the American Medical Association*, 281:1373, 1999.
- 40 Bennett GG, McNeill LH et al. "Safe To Walk? Neighborhood Safety and Physical Activity Among Public Housing Residents." *Public Library of Science*, 4 (10), October 2007.
- 41 Greves HM, Lozano P et al. "Immigrant families' perceptions on walking to school and school breakfast: a focus group study." *The International Journal of Behavioral Nutrition and Physical Activity*, 4(64), 2007.
- 42 Krahnstoeve DK and Lawson CT. "Do attributes in the physical environment influence children's physical activity? A review of the literature." *International Journal of Behavioral Nutrition and Physical Activity*, 3(19), 2006.
- 43 "Perceptions of Neighborhood Characteristics and Leisure-Time Physical Inactivity ---Austin/Travis County, Texas, 2004." *Centers for Disease Control and Prevention, Morbidity and Mortality Weekly Report*, 54(37): 926-928, September 23, 2005.
- 44 Brown HS, Perez A et al. "Crime rates and sedentary behavior among 4th grade Texas school children." *International Journal of Behavioral Nutrition and Physical Activity*, 5(28): 2008.
- 45 Molnar BE, Gortmaker SL et al. "Unsafe to Play? Neighborhood Disorder and Lack of Safety Predict Reduced Physical Activity Among Urban Children and Adolescents." *American Journal of Health Promotion*, 18 (5): 378-386, 2004.
- 46 Babey SH et al. *Access to Safe Parks Helps Increase Physical Activity Among Teenagers*. Los Angeles: UCLA Center for Health Policy Research, December 2005, www.healthpolicy.ucla.edu/pubs/files/TeenActivity_PB_120605.pdf (accessed August 2011).
- 47 Ibid.
- 48 Cohen D, Sehgal A et al. "New Recreational Facilities for the Young and the Old in Los Angeles: Policy and Programming Implications." *Journal of Public Health Policy*, 30: S248-S263, 2009.
- 49 Giles-Corti B, Broomhall M et al. "Increasing Walking: How Important is Distance to, Attractiveness, and Size of Public Open Space?" *American Journal of Preventive Medicine*, 28(2S2):169-176, 2005.
- 50 Coen S and Ross N. "Exploring the Material Basis for Health: Characteristics of parks in Montreal Neighborhoods with Contrasting Health Outcomes." *Health & Place*, 12: 361-371, 2006.
- 51 Obesity Prevention Council "Madera In Motion" *Sees Safe Neighborhoods As Key To Community Health*. Los Angeles: The California Endowment, www.csufresno.edu/ccchhs/institutes_programs/CCROPP/activities/success_stories/madera.pdf (accessed September 2011).
- 52 Samuels S et al. *Reclaiming Public Spaces: Taking Action to Make Neighborhoods State and Parks Accessible*. Oakland: Samuels & Associates, December 2010, www.samuelsandassociates.com/samuels/upload/ourlatest/Crime_Obesity_Prevention_Brief.pdf (accessed September 2011).
- 53 Witt PA and Caldwell LL. *The Rationale for Recreation Services for Youth: An Evidence-Based Approach*. Ashburn, VA: National Parks and Recreation Association, 2010, www.nrpa.org/uploadedFiles/Explore_Parks_and_Recreation/Research/Witt-Caldwell-Research%20Paper-Final-lores.pdf (accessed September 2011).
- 54 Goldschmidt P, Huang D and Chinen M. *The Long-Term Effects of After-School Programming on Educational Adjustment and Juvenile Crime: A Study of LA's BEST After-School Program*. Los Angeles: CA: CRESST/University of California, June 2006, www.lasbest.org/what/publications/LASBEST_DOJ_Final%20Report.pdf (accessed September 2011).
- 55 Hartman D and Depro B. "Rethinking Sports-Based Community Crime Prevention: A Preliminary Analysis of the Relationship Between Midnight Basketball and Urban Crime Rates." *Journal of Sport and Social Issues*, 30:130, 2006.

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